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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,525	01/25/2001	Michael Hrabik	881075/3	5856

7590 03/10/2004

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EXAMINER	
JACKSON, JENISE E	

ART UNIT	PAPER NUMBER
2131	20

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/770,525	HRABIK ET AL.	
	Examiner	Art Unit	
	Jenise E Jackson	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 5-6, 11, 13, 15, 17, 19, 21-22 are sill rejected under 35 U.S.C. 103(a) as being unpatentable over (Messmer and Newton's Telecom Dictionary) in further view of Livermore.

3. As per claims above, Messmer teaches outsourcing intrusion detection. Messmer also teaches that Counterpane manages intrusion-detection services, by having a black box that is located on a companies network. Thus, the Examiner asserts that by having the black box sensor that is located on the network, this constitutes a security subsystem, because the security subsystem continuously monitors and collects data and transmits the information to Counterpane's data center(i.e. Master system). Also, because the Applicant provides no specific definition of a master system, the Examiner broadly interprets a master system to be any system that is analyzes information from the subsystem, because Messmer teaches that all data from customer's network is transmitted to the Master system(i.e. Counterpane's data center). Further, Messmer teaches that the subsystem(i.e. black box) without human control is configured to correlate events across a plurality of devices associated with the network of computers and detect attacks on the computer, because Messmer teaches that a probe or "black box sensor" is put on the customer's network(i.e. target network) to accept audit data from a wide range of devices. Further, Messmer teaches that the black box sensor captures syslog and audit outputs from

Windows NT, Solaris, Linux servers; firewalls; ISS and intrusion detection software. Further, master system(i.e. Counterpane's data center) registers information pertaining to attacks detected by the security subsystem(i.e. black box), because Messmer teaches that the black box regularly transmits the network activity output to the master system(i.e. data centers). Furthermore, Messmer teaches that the data that is transmitted to the master system(i.e. data center) are footprints of attacks, and the data center has analysts that are trained to understand them. Thus, the Examiner asserts that the data that is transmitted is outputted to the master system(i.e. data center), and registered so the information can be analyzed by the analysts. Lastly, Messmer teaches that the security subsystem(i.e. black box) and the master system(i.e. Counterpane's data center) communicates by using encryption, because Messmer teaches that the Counterpane's black box regularly transmits the network activity output in encrypted form to Counterpane's data center(i.e. master system).

4. The Examiner asserts that since the Applicant does not provide a definition of a secure link(i.e. channel). The Examiner looks towards Newton's Telecom Dictionary. According to Newton's Telecom Dictionary, a secure channel(i.e. link) is defined as technology that provides privacy, integrity, and authentication in point-to-point communication(see pg. 636). Thus, the Examiner asserts that the encryption taught in Messmer is a secure channel, because encrypting insures that information is protected from unauthorized viewing or use; therefore, insuring privacy, and integrity is maintained because if information is private the information cannot be manipulated, and authentication because in encryption in order to decode the information one must have the corresponding key to decode. Thus, the motivation to have an encrypted channel(i.e. link) is that the information that is sent between the two points of security subsystem

and the master system is kept private and integrity is kept, and both parties can be authenticated, and thus prevents intruders or unauthorized users from manipulating information.

5. Further, Messmer nor Newton's Telecom Dictionary disclose a master system that automatically with human control. However, Livermore teaches automated response to intrusions. It would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to include automated response in Messmer and Newton's Telecom Dictionary, the motivation is that automated response is more efficient and provides faster response time than human capacity, because a response can be within a millisecond(see pg. 20). Further, Livermore also teaches that people have moved toward automation for real-time intrusion because malicious attackers now commonly use automation in their attacks(see pg. 4)

5. As per independent claims 11, 21-22, and also dependent claims 3, 6, 15, 19, limitations have already been addressed see claim 1 above. Also, claims 11, 21-22, 3, 6, 15, 19 include a master system hierarchically independent from the security subsystem. The Examiner asserts that Messmer discloses this because Messmer teaches that the master system(i.e. data center) is located in California or Virginia and that all data located on customer's network is transmitted to the master system. Also, the master system monitors the security subsystem around the clock, and the master system and Messmer also teaches that the master system is an outsourced intrusion detection. Thus, the Examiner asserts that the Master system is hierarchically independent from the security subsystem.

6. As per claims 4, 7, Messmer teaches that a security subsystem is hierarchically subordinate to the master system, because Messmer teaches that the customer's network has a black box sensor that correlates all the information from devices on the customer's network(see

claim 1, above), and this information is transferred to the Master system. Further, the master system(i.e. data center) of Messmer tells customers how to handle intrusions. Therefore, the Examiner asserts that the security subsystem is subordinate to the master system.

7. As per claims 14, 18, Messmer teaches that the detection means(i.e. black box sensor) is one or more selected from the group consisting of an intrusion detection system, firewall and security subsystem. The Examiner asserts that Messmer meets this limitation, because the black box sensor detects attack on the network.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2, 8, 12, 16, 20 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Messmer and Newton's Telecom Dictionary, Livermore, in view of Kurtzberg et al. and further in view of Hill et al.

10. As per the claims above, Messmer and Livermore are silent on how the data center test for vulnerabilities. However, Kurtzberg et al. discloses testing a system by having a psuedo(i.e. simulated) attack generator for generating attacks on the computer(see col. 3, lines 21-28). Although, Messmer does not explicitly disclose comparing pseudo-attack to the attacks detected by the security subsystem, the Examiner looks towards Hill et al. for this feature. Hill et al. discloses comparing pseudo-attacks(i.e. training attacks) to the attacks detected by the security system(see col. 3, lines 20-36).

11. It would have been obvious to modify Messmer and Newton's Telecom Dictionary, and Livermore with the features of Kurtzberg et al. and Hill et al. The Messmer and Newton Dictionary, and Livermore, do not teach how the testing is done. Therefore, the Examiner looks towards Kurtzberg et al. and Hill et al. to include the features of pseudo attack generator and comparing the psuedo attacks to attacks detected by the system. Thus, the motivation to include how the testing is performed of Kurtzberg and Hill et al. with Messmer and Newton's Telecom Dictionary, and Livermore, combination includes the data center testing for vulnerabilities of the security subsystem by using the pseudo attack generator, and comparing the pseudo attacks to attacks detected by the system. This method of testing insures that integrity is maintained by testing the security subsystem thereby protecting the network form unauthorized penetrations (see col. 1, lines 35-40 of Kurtzberg et al.). Thus, integrity of a computer system can be tested reliably to improve or complement the system performance(see col. 1, lines 65-67 of Kurtzberg).

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messmer and Newton Telecom Dictionary, Livermore, Kurtzberg and further in view of Hill as applied to claim 8 above.

13. As per claim 9, the Examiner asserts that Messmer discloses this because Messmer teaches that the master system(i.e. data center) is located in California or Virginia and that all data located on customer's network is transmitted to the master system. Also, the master system monitors the security subsystem around the clock, and the master system and Messmer also teaches that the master system is an outsourced intrusion detection. Thus, the Examiner asserts that the Master system is hierarchically independent from the security subsystem.

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messmer and Newton Telecom Dictionary, and Livermore, Kurtzberg and further in view of Hill as applied to claim 8 above.

15. As per claim 10, Messmer teaches that a security subsystem is hierarchically subordinate to the master system, because Messmer teaches that the customer's network has a black box sensor that correlates all the information from devices on the customer's network(see claim 1, above), and this information is transferred to the Master system. Further, the master system(i.e. data center) of Messmer tells customers how to handle intrusions. Therefore, the Examiner asserts that the security subsystem is subordinate to the master system.

Response To Amendment

16. The Applicant states that Messmer teaches that the black box only captures the security-related data and passes it onto the center. Further, the Applicant states that the black box does not automatically and without human control correlate events recorded in the syslog, audit outputs or in any other network activity output. The Examiner disagrees with the Applicant. Messmer teaches that the black box sensor captures syslog and audit outputs from Windows NT, Solaris, Linux servers; firewalls; ISS and intrusion detection software. Messmer does not teach human control with analyzing the data from the black box sensor; therefore, the black box sensor meets the claims limitation (see above), that claims the security subsystem.... with human control. The information from the black box sensor is transmitted to a data center for analysts by human analysts. Thus, the **new** limitation of without human control.... of a master system is not taught in Messmer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E Jackson whose telephone number is (703) 306-0426. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-0040 for regular communications and (703) 308-6306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AYAZ SHEIKH
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